

Lake Okeechobee Protection Plan

Work Plan

January 22, 2003

Prepared by:



South Florida Water
Management District



Florida Department of
Environmental Protection



Florida Department of Agriculture
and Consumer Services

Assisted by:



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1 Introduction






This is the work plan for developing the Lake Okeechobee Protection Plan (LOPP) document in accordance with the Lake Okeechobee Protection Program (Chapter 373.4595, F.S.). The work plan was developed for use by the Coordinating Agencies to define the scope of work, schedule and responsibilities required to complete the LOPP document.

2 Background




Phosphorous loads from the Lake Okeechobee watershed have contributed to excessive phosphorous levels in Lake Okeechobee and downstream receiving waters. Therefore, the Lake Okeechobee Protection Program (Chapter 373.4595, F.S., referred to as LOPA) was developed to achieve phosphorous load reductions to the lake from internal and external sources utilizing a phased approach. Initial load reductions will be based on the SFWMD's Works of the District Program. Subsequent phases will be based on the total maximum daily load (TMDL) established for Lake Okeechobee in accordance with Chapter 403.067 F.S.

2.1 Lake Okeechobee Protection Plan

LOPA requires that by January 1, 2004, the Coordinating Agencies (DACS, DEP and SFWMD) will complete a Lake Okeechobee Protection Plan according to LOPA and the SWIM Act (Chapters 373.451 through 373.459). The plan will contain a schedule for implementation of the subsequent phases of load reduction consistent with the TMDL statute. The plan will consider and build upon a review and analysis of the following Lake Okeechobee projects and/or programs:




-  Construction Project – Phases I and II;
-  Watershed Phosphorous Control Program;
-  Research and Water Quality Monitoring Program;
-  Exotic Species Control Program; and
-  Internal Phosphorous Management Program.

The Lake Okeechobee Protection Program contains three requirements that involve the development of a long-term comprehensive plan for all actions that will be required to meet the Lake Okeechobee TMDL by the year 2015. The required actions consist of the following:

-  Development of a Lake Okeechobee Protection Plan;
-  Implementation plan for Phase II of the Lake Okeechobee Construction Project; and
-  Initial evaluation of further phosphorus measures that will be required to meet the TMDL.

All three of these requirements will be addressed in the development of a Lake Okeechobee Protection Plan.

In general, the Legislation requires the plan to have the following characteristics:

-  Reduce external and internal phosphorus loads through a phased program;
-  Initial implementation actions will be technology-based with an initial phosphorus load reduction goal based on the South Florida Water Management District's Technical Publication 81-2;
-  Include long-term solutions based on the TMDL;

- ✍ Based on consideration of both the availability of appropriate technology and the cost of such technology;
- ✍ Include phosphorus reduction measures at both the source and regional levels;
- ✍ Maximize opportunities provided by federal cost-sharing program and opportunities for pollutant trading and credits, and partnerships with the private sector; and
- ✍ Final implementation phase will result in full compliance with the requirements of the Lake Okeechobee TMDL by 2015.

2.2 Lake Okeechobee Protection Plan Evaluation

The Legislation requires the SFWMD in cooperation with the coordinating agencies to complete periodic evaluations of any further phosphorus reduction measures necessary to achieve compliance with the Lake Okeechobee TMDL. The first of these evaluations will be completed by January 1, 2004 and subsequent evaluations will be completed at three-year intervals thereafter. The evaluations will include identification of potential modifications to the Lake Okeechobee Construction Project as appropriate if the design objectives are not being met. The evaluation will be included in the applicable annual progress report required by the Legislation.

The Lake Okeechobee Protection Program also requires the preparation of annual progress reports to be submitted to the Governor, the President of the Senate, and the Speaker of the House by January 1st. The progress reports will include a summary of water quality conditions in Lake Okeechobee and the Lake Okeechobee watershed and the status of the Lake Okeechobee Construction Project.

2.3 Lake Okeechobee Construction Project – Phase II

The legislation requires the SFWMD in cooperation with the coordinating agencies and USACE to complete an implementation plan for Phase II of the Lake Okeechobee Construction Project be completed by January 1, 2004. The plan will include construction of all additional facilities (beyond what is required in Phase I) required in the watershed. This implementation plan will:

- ✍ Identify Lake Okeechobee Construction Project facilities to be constructed to achieve the Lake Okeechobee TMDL;
- ✍ Identify the size and location of all such Lake Okeechobee Construction Project facilities;
- ✍ Provide a construction schedule for all such Lake Okeechobee Construction Project facilities, including the sequencing and specific timeframe for construction of each facility;
- ✍ Provide a land acquisition schedule for lands necessary to achieve the construction schedule;
- ✍ Provide a detailed schedule of costs associated with the construction schedule;
- ✍ Identify, to the maximum extent practicable, wetland impacts expected to be associated with construction of such facilities, including potential alternatives to minimize or mitigate such impacts.

2.4 Lake Okeechobee TMDL

The DEP adopted by rule a phosphorus TMDL for Lake Okeechobee of 140 tons/year in May 2001. This TMDL is allocated to the sum of nonpoint sources directly entering Lake Okeechobee. The implementation of the TMDL follows the restoration plan outlined in LOPA.

The Lake Okeechobee Protection Plan outlines the subsequent phases of phosphorus load reduction needed to achieve the TMDL by 2015.

2.5 Lake Okeechobee Watershed Project

The Lake Okeechobee Watershed Project (LOWP) is a component of the Comprehensive Everglades Restoration Program (CERP). The LOWP consists of four regional water quality treatment and water storage components with the following two goals:

- ✍ Provide storage of floodwater runoff from the northern watershed for the purpose of reducing the frequency and duration of high water levels in Lake Okeechobee that require damaging flood releases to the estuaries and harm the natural resources of the lake.
- ✍ Provide phosphorous load reductions to Lake Okeechobee.

The project is currently in the planning phase. The first step in the planning process is the preparation of a watershed assessment. As a part of the watershed assessment, hydrologic and water quality modeling will be performed to develop hydrologic and water quality characterizations for each sub-basin. This information will be used to identify the sub-basins that will be investigated for the placement of CERP project components.

The final product of the Watershed Assessment will be a work plan that identifies the geographic areas or sub-basins where LOWP components will be located (although the specific footprints of the project components will be identified in subsequent planning). The plan will also identify the maximum potential water storage and phosphorus load reductions that might be accomplished. Schedules and cost estimates for completion of the project will be included.

The Watershed Assessment is scheduled for completion in July 2003. In advance of that date, preliminary information will be available and will be useful in the development of the Lake Okeechobee Protection Plan. It is critical that the LOWP project planning be integrated into development of the more comprehensive Lake Okeechobee Protection Plan.

3 Roles and Responsibilities

3.1 Interagency Team

The IAT is responsible for developing the overall plan and seeing that the plan meets the requirements of LOPA. In addition, the IAT is responsible for conducting analyses required during the plan formulation process described in Section 3.1 of the work plan. Modeling that may be required to evaluate and compare the alternatives will also be conducted by the IAT.

3.2 HDR Engineering






HDR's role on the project is to provide assistance and help facilitate the plan formulation process. HDR will prepare documents required for the plan as follows:

- ✍ Document results of literature reviews and contacts with IAT members regarding related, ongoing or planned projects;
- ✍ Document results of meeting discussions required for preparation of the plan; and
- ✍ Integrate written input provided by IAT participants.

HDR will prepare a preliminary draft of each deliverable for initial review by the PM. Once reviewed, HDR will submit a draft to the PM for distribution to the IAT. Comments from the IAT will be provided directly to HDR. Final documents will be distributed to the IAT by the PM.

4 Scope of Work






The scope of work for the IAT with assistance from HDR is to develop the Lake Okeechobee Protection Plan (LOPP) document consistent with LOPA that includes the following:

-  Detailed description of plan formulation (development of evaluation criteria through to recommended plan selection);
-  Detailed description of the recommended plan;
-  Implementation schedule with milestones and cost estimates;
-  Initial evaluation of further phosphorus measures that will be required to meet the TMDL; and
-  2003 annual progress report.

A full schedule is contained in Appendix A.

4.1 Plan Formulation

Plan formulation of the LOPP document will be developed through a step-wise process consisting of the following:

-  Develop Evaluation Criteria
-  Formulate Alternatives
-  Evaluate Alternatives
-  Compare Alternatives
-  Select Recommended Plan

Each of these will be treated as independent but related tasks and will result in a deliverable that will be formatted to “build” the final document. The recommended plan will be described in a comprehensive draft document (compilation of previous task documents) that will be reviewed and approved by the IAT prior to finalization.





Task 1 – Develop Work Plan

The initial task is development of a work plan that defines scope, schedule and responsibilities for developing the LOPP document. HDR will develop a draft plan, based on their scope of services, and present it at the December 2002 IAT meeting. The work plan will be adjusted based on comments obtained during the meeting.

Task 2 – Develop Evaluation Criteria

The product of this task will be a set of evaluation criteria that will be used by the IAT to evaluate potential alternatives for reaching compliance with the TMDL. Each alternative approach will consist of a combination of components that might include agricultural BMPs, urban BMPs, regional treatment facilities, etc. that would collectively meet the TMDL.




The set of evaluation criteria will represent all major factors that would be used to evaluate alternatives and select the recommended plan. The evaluation criteria will support the overall goals and objectives of the project. Each criterion will consist of the following components:

-  **Description** – what the criteria is measuring and why.
-  **Rationale** – description of why the criterion is useful for measuring project results. This will assist in determining the weighting or relative importance of each criterion.
-  **Target** – description of how performance will be measured for the evaluation criteria and what will constitute success (or failure) and procedures for scoring various levels of performance.
-  **Methodology** – description of how the performance of the alternatives will be evaluated. It is anticipated that most evaluations will be based on subjective evaluations using best professional judgment. The methodology should provide descriptions of specific considerations that will apply for subjective evaluations. For criteria where quantifiable measures are possible within the available timeframe, the methodology should provide specific descriptions of the models, computations, analyses, etc that will be required to evaluate performance.

Based on the discussions at the IAT meeting, HDR will prepare a preliminary draft evaluation criteria document that will identify criteria to be used and provide descriptions and rationales for each. The preliminary draft will be reviewed by the IAT and comments will be incorporated into a draft document. The draft will also contain descriptions of the targets and methodologies for each evaluation criteria. The IAT will identify appropriate agency team members to assist in preparing descriptions of the target and methodology for specific evaluation criteria. HDR will compile input from the members into the final draft evaluation criteria document. With guidance from the IAT, HDR will respond to comments and finalize the document.

Task 3 – Formulate Alternatives

The product of this task will be a set of three to five alternatives that will undergo detailed evaluation by the IAT. Each alternative will have the following characteristics:

-  Combine source control measures at a parcel scale with regional water quality treatment measures that will collectively meet the TMDL;
-  Contain the regional water storage and water quality treatment components identified by the LOWP; and
-  Address the requirements for Phase II of the Lake Okeechobee Construction Project and the LOPP.

The final set of alternatives will be identified through a process of brainstorming a broad set of alternatives and then screening the alternatives down to the 3 to 5 that would have the highest probability of meeting the goals of the program.

The results of the hydrologic and water quality characterization completed in the LOWP will be used to identify specific areas where potential source control and treatment measures may be located. These measures will be targeted for areas outside of the LOW alternatives but will look to complement those project features.

Based on the discussions at the meeting, HDR will prepare a preliminary alternative plan document. The initial draft alternative plan document will contain the following information:

- ✍ Conceptual description of each alternative that is of sufficient detail to enable comparison with other alternatives;
- ✍ Description of the method used to narrow the brainstormed set of alternatives down to a final set of 3 to 5; and
- ✍ Summary of why the final set of 3 to 5 alternative plans was selected for detailed evaluation.

HDR will distribute the preliminary document to the IAT for review and comment. Based on guidance from the IAT, HDR will incorporate comments into the draft document. HDR will also work with the project manager to identify appropriate IAT members to provide more detailed descriptions of each of the final set of alternative plans for incorporation into the final draft document. HDR will incorporate input from the IAT members on the alternative plan descriptions into the draft alternative plan document. HDR will distribute the draft alternative plan document to the IAT for review and comment. Based on guidance from the IAT, HDR will respond to comments and finalize the document.

Task 4 – Evaluate Alternatives

The final product of this task will be documentation of the IAT's evaluation of the final set of alternative plans identified using the evaluation criteria. It is anticipated that a combination of objective and subjective evaluations will be required. The objective evaluations may require modeling or some other technical computational approach. The subjective evaluations may require the application of best professional judgment by qualified technical experts. The IAT will be responsible for performing all objective and subjective evaluations of alternative plans.

The SFWMD project manager (PM) will identify the appropriate IAT members to perform the objective evaluations. The PM will also identify the appropriate individuals to provide their best professional judgment in the application of the subjective evaluation criteria.

HDR will be responsible for preparing documentation of the results of the IAT's evaluations of alternative plans. HDR will assist the PM in planning a process for facilitating the objective and subjective evaluations by the IAT members. HDR will also facilitate meetings, as appropriate, of the technical experts identified by the PM to perform the subjective evaluations of alternative plans. It is assumed that three sub-teams of technical experts will accomplish the alternative plan evaluation, each meeting 2 times (6 meetings total).

HDR will compile the results of all evaluations of alternative plans and prepare a draft alternative plan evaluation document. HDR will distribute a draft document to the IAT for review and comment. Based on guidance from the PM, HDR will respond to comments and prepare a final alternative plan evaluation document.

Task 5 – Compare Alternatives

The final product of this task will be a comparison of the alternatives in a form that can be used to identify the plan that best meets the requirements of LOPA. The comparison will be performed based on the evaluations performed above.

A preliminary alternative plan comparison document will be prepared by HDR. The preliminary document will contain a summary of the results of Tasks 2, 3 and 4 in addition to a description of the relative performance of each of the alternatives. HDR will distribute the draft alternative plan comparison document to the IAT for review and comment. Based on guidance from the

PM, HDR will respond to comments and finalize the draft document. The IAT will provide guidance to HDR regarding potential modifications to the comparison of the plans based on public input. Based on guidance provided by the PM, HDR will prepare a final recommended plan document.

Task 6 – Prepare LOPP Document

The final product of this task consists of a final document that includes:

- ✍ Results of Tasks 2 through 5;
- ✍ Detailed description of the recommended plan;
- ✍ Implementation schedule with milestones and cost estimates;
- ✍ Initial evaluation of further phosphorus measures that will be required to meet the TMDL; and
- ✍ 2003 annual progress report.

The LOPP report will include a main report that summarizes the results of Tasks 2 through 5. More detailed information on these tasks will be included in appendices to the report. The description of the recommended plan will be modified to provide additional detail regarding what is included, how it will be implemented, what agencies/entities will be responsible, land requirements, cost estimates, and a schedule of milestones. The report will address an initial assessment of additional measures that will be needed to achieve the TMDL. Additionally, the report will contain a 2003 progress report with the same format and content of the prior annual reports. An executive summary of no more than 20 pages will be prepared by HDR.

HDR will work with the PM to identify input that will be required to complete the LOPP document. The PM will request the appropriate IAT members to prepare portions of the report. The IAT members will prepare the report sections and provide them to HDR.

HDR will compile input from the IAT members and the results of Tasks 2 through 5 into a coherent draft document with appendices and an executive summary. HDR will distribute the draft document to the IAT for review and comment. Based on guidance from the PM, HDR will respond to comments and finalize the report. HDR will also prepare a final LOPP report.

4.2 Meetings

Several meetings are planned to address the specific requirements of developing the LOPP document. The meetings will be the primary mechanism used by the IAT members to achieve the requirements of the plan. The purposes of the meetings will be to:

- ✍ Develop comprehensive integrated strategies for development of the plan;
- ✍ Generate information that will be required for preparation of the plan through open interagency discussion;
- ✍ Identify requirements for written input to the plan from interagency participants; and
- ✍ Conduct interagency reviews and provide comments on draft work products.

HDR will assist the IAT in planning all meetings and facilitate discussions to meet the specific goals of the meeting. HDR will prepare written documentation based on guidance provided by the IAT participants. The following are scheduled meeting dates and public workshops.

Purpose	Date
IAT Meeting – Work Plan	December 18, 2003
IAT Meeting – Develop Evaluation Criteria	January 24, 2003
Public Workshop – Present Draft Evaluation Criteria	March 19, 2003
IAT Meeting – Alternative Plan Brainstorming	March 19, 2003
IAT Meeting – Alternative Plan Comparison	July 9, 2003
Public Workshop – Initial Alternative Plan Comparison	July 24, 2003
Public Workshop – Final Alternative Plan Comparison	September 17, 2003

IAT Meeting – Evaluation Criteria

HDR will work with the IAT to initiate development of the evaluation criteria. The goal of the meeting will be to identify an initial draft of a complete list of criteria that should be utilized. HDR will facilitate the meeting and record the discussions as appropriate.

Public Workshop – Evaluation Criteria

A public workshop will be held and attended by selected IAT members to present the results of the draft evaluation criteria document. HDR will prepare information to be distributed prior to, or at the meeting, attend the meeting and make a presentation as appropriate, and record public comments.

IAT Meeting – Alternative Plan Brainstorming

The goal of the meeting will be to brainstorm a broad range of alternative plans and to develop a process for narrowing the alternatives to a final set of 3 to 5. HDR will facilitate the meeting and record the discussions.

IAT Meeting – Alternative Plan Comparison Meeting

HDR will assist the PM in the developing a strategy for conducting an IAT meeting to discuss the comparison of alternative plans. HDR will facilitate the IAT meeting. The goal of the meeting will be to describe the relative performance of the alternative plans.

Initial Public Workshop – Alternative Plan Comparison

Following the IAT meeting, a public workshop will be conducted to obtain comments. The goal of the public workshop will be to obtain input on the comparison of the alternative plans. HDR will be responsible for recording the discussions at the meetings and documenting the rationale for selection of the recommended plan.

Final Public Workshop – Alternative Plan Comparison

HDR will assist the PM to plan and conduct a public workshop to discuss the comparison of alternative plans. HDR will be available at the public workshop to provide presentations or to

answer questions as appropriate. HDR will be responsible for recording the discussions at the public workshop.

4.3 Deliverables

The following table lists the project deliverables and due dates.

Task Number	Deliverable	Due Date
Task 1 – Work Plan	Draft Work Plan	December 18, 2003
	Preliminary Draft Evaluation Criteria	February 14, 2003
Task 2 – Evaluation Criteria	Draft Evaluation Criteria	March 14, 2003
	Final Evaluation Criteria	April 16, 2003
Task 3 – Formulate Alternatives	Preliminary Draft Alternative Plan	April 9, 2003
	Draft Alternative Plan	April 23, 2003
	Final Alternative Plan	May 14, 2003
Task 4 – Evaluate Alternatives	Draft Alternative Evaluation	June 4, 2003
	Final Alternative Evaluation	June 25, 2003
Task 5 – Compare Alternatives	Preliminary Draft Alternative Comparison	July 30, 2003
	Draft Alternative Comparison	August 13, 2003
	Final Alternative Comparison	September 15, 2003
Task 6 – LOPP	Draft LOPP	October 15, 2003
	Final LOPP	December 3, 2003

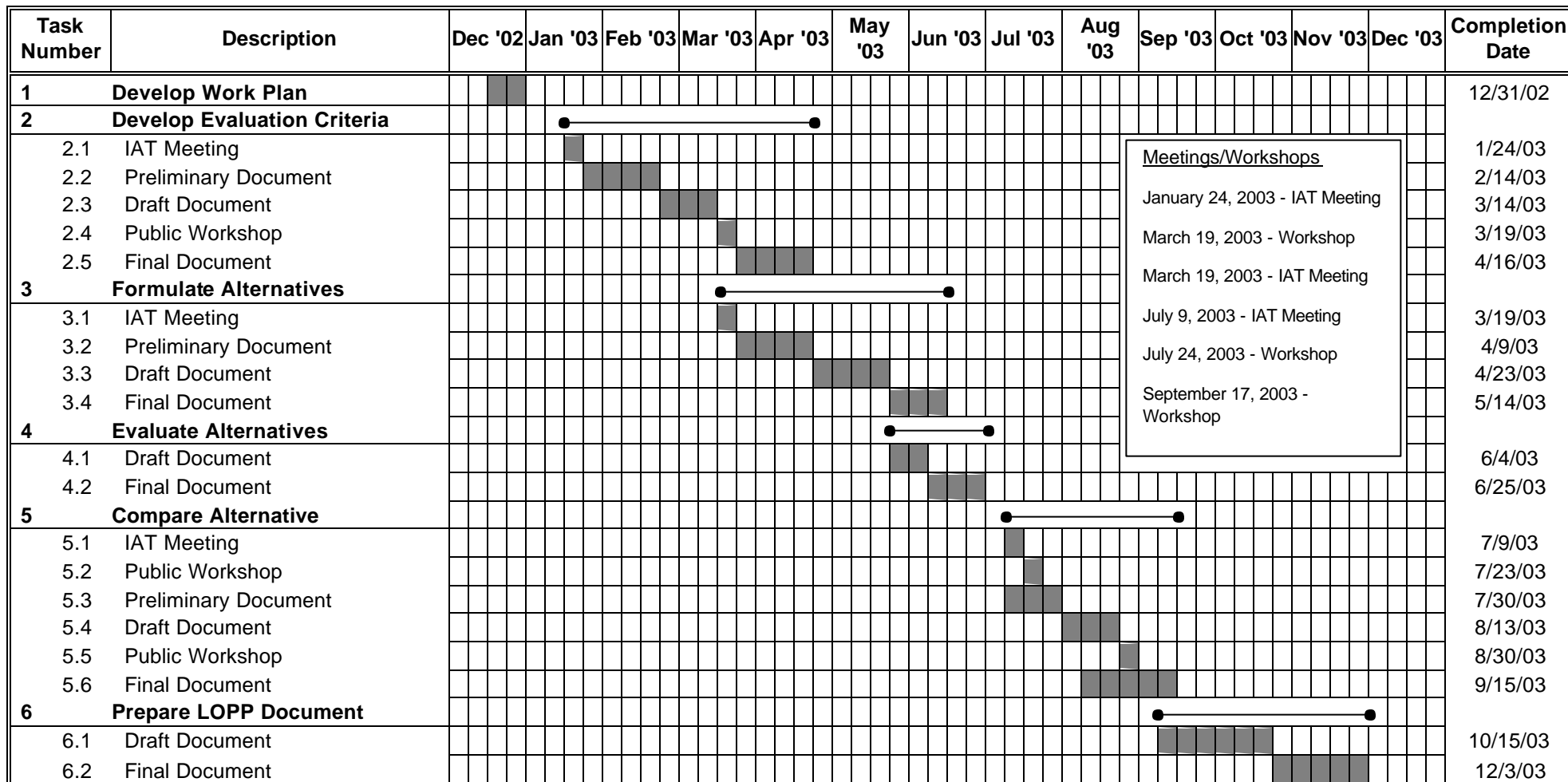
5 Contacts

The following are primary and secondary contacts for this project.

Organization	Primary/Secondary Contact	Phone Number	Email Address
DACS	Primary – Chuck Aller	850-410-6732	aller@doacs.state.fl.us
	Secondary 1 – Rich Budell	850-921-9723	budellr@doacs.state.fl.us
	Secondary 2 – John Folks	850-414-9928	folksj@doacs.state.fl.us
DEP	Primary – Jerry Brooks	850-245-8338	Jerry.brooks@dep.state.fl.us
	Secondary – Kim Shugar	561-681-6616	kimberly.shugar@dep.state.fl.us
SFWMD	Primary – Susan Gray	561-682-6916	sgray@sfwmd.gov
	Secondary – Lewis Hornung	561-628-2007	lhornun@sfwmd.gov
HDR Engineering	Primary – Galand Beard	561-686-7513	gbeard@hdrinc.com
	Secondary – Chuck Sinclair	561-686-7513	csinclair@hdrinc.com

Appendix A - Schedule

Lake Okeechobee Protection Plan Schedule



Appendix B – HDR Scope of Services

PART 2 – LAKE OKEECHOBEE PROTECTION PLAN

2-1 BACKGROUND

The Lake Okeechobee Protection Program (Chapter 00-130, Laws of Florida) was passed by the 2000 Florida Legislature. This Program committed the State of Florida to restore and protect Lake Okeechobee. This will be accomplished by achieving and maintaining compliance with water quality standards in Lake Okeechobee and downstream receiving waters, through a watershed-based, phased, comprehensive and innovative protection program designed to reduce phosphorus loads and implement long-term solutions, based upon the lake's Total Maximum Daily Load (TMDL).

The Program sets forth a series of activities and deliverables for the coordinating agencies: the South Florida Water Management District (District); the Florida Department of Environmental Protection (FDEP); and the Florida Department of Agriculture and Consumer Services (FDACS), with the participation of the University of Florida's Institute for Food and Agricultural Sciences (IFAS). Implementation of all components of the Program will also require input from the U.S. Natural Resources Conservation Service, the Corps of Engineers, local Soil Conservation Service Districts, Florida Fish and Wildlife Conservation Commission, as well as other agencies, organizations, and private landowners.

The Lake Okeechobee Protection Program (LOPP) requires the implementation of the following major components:

- ?? Lake Okeechobee Construction Project (Phases 1 and 2)
- ?? Watershed Phosphorus Control Program
- ?? Research and Water Quality Monitoring Program
- ?? Exotics Species Control Program
- ?? Internal Phosphorus Management Program
- ?? Lake Okeechobee Protection Permits

The Lake Okeechobee Protection Program contains three requirements that involve the development of a long-term comprehensive plan for all actions that will be required to meet the Lake Okeechobee TMDL by the year 2015. The required actions consist of

1. the development of a Lake Okeechobee Protection Plan,
2. an implementation plan for Phase II of the Lake Okeechobee Construction Project, and
3. an initial evaluation of further phosphorus measures that will be required to meet the TMDL.

All three of these requirements will be addressed in the development of a Lake Okeechobee Protection Plan.

In general, the Legislation requires the plan to have the following characteristics:

- ?? Reduce external and internal phosphorus loads through a phased program;
- ?? Initial implementation actions shall be technology-based with an initial phosphorus load reduction goal based on the South Florida Water Management District's Technical Publication 81-2;
- ?? Include long-term solutions based on the TMDL;
- ?? Based on consideration of both the availability of appropriate technology and the cost of such technology;

- ?? Include phosphorus reduction measures at both the source and regional levels;
- ?? Maximize opportunities provided by federal cost-sharing program and opportunities for pollutant trading and credits, and partnerships with the private sector;
- ?? Final implementation phase shall result in full compliance with the requirements of the Lake Okeechobee TMDL 2015.

2-1.1 Lake Okeechobee Protection Plan

The legislation requires the District in cooperation with the Coordinating Agencies to complete a Lake Okeechobee Protection Plan by January 1, 2004 that will contain an implementation schedule for subsequent phases of phosphorus load reduction consistent with the total maximum daily load. The plan shall consider and build upon a review and analysis of the following:

- ?? The performance of projects constructed during Phase I of the Lake Okeechobee Construction Project;
- ?? Relevant information resulting from the Lake Okeechobee Watershed Phosphorus Control Program;
- ?? Relevant information resulting from the Lake Okeechobee Research and Water Quality Monitoring Program;
- ?? Relevant information resulting from the Lake Okeechobee Exotic Species Control Program; and
- ?? Relevant information resulting from the Lake Okeechobee Internal Phosphorus Management Program.

2-1.1 Lake Okeechobee Construction Project – Phase II

The legislation requires the District in cooperation with the coordinating agencies and USACE to completion of an implementation plan for Phase II of the Lake Okeechobee Construction Project be completed by January 1, 2004. The plan shall include construction of all additional facilities (beyond what is required in Phase I) required in the watershed. This implementation plan shall:

- ?? Identify Lake Okeechobee Construction Project facilities to be constructed to achieve the Lake Okeechobee TMDL;
- ?? Identify the size and location of all such Lake Okeechobee Construction Project facilities;
- ?? Provide a construction schedule for all such Lake Okeechobee Construction Project facilities, including the sequencing and specific timeframe for construction of each facility;
- ?? Provide a land acquisition schedule for lands necessary to achieve the construction schedule;
- ?? Provide a detailed schedule of costs associated with the construction schedule;
- ?? Identify, to the maximum extent practicable, wetland impacts expected to be associated with construction of such facilities, including potential alternatives to minimize or mitigate such impacts.

2-1.3 Lake Okeechobee Protection Plan Evaluation

The Legislation requires the District in cooperation with the coordinating agencies to complete periodic evaluations of any further phosphorus reduction measures necessary to achieve compliance with the Lake Okeechobee TMDL. The first of these evaluations shall be completed by January 1, 2004 and subsequent evaluations will be completed at three-year intervals thereafter. The evaluations will include identification of potential modifications to the Lake Okeechobee Construction Project as appropriate if the design objectives are not being met. The evaluation shall be included in the applicable annual progress report required by the Legislation.

The Lake Okeechobee Protection Program also requires the preparation of annual progress reports to be submitted to the Governor, the President of the Senate, and the Speaker of the House by January 1st. The progress reports shall include a summary of water quality conditions in Lake Okeechobee and the Lake Okeechobee watershed and the status of the Lake Okeechobee Construction Project.

2.1.4 Lake Okeechobee Total Maximum Daily Load

The Florida Department of Environmental Protection adopted by rule a phosphorus TMDL for Lake Okeechobee of 140 tonnes/year in May 2002. This TMDL is allocated to the sum of nonpoint sources directly entering Lake Okeechobee. The implementation of the TMDL follows the restoration plan outlined in the Lake Okeechobee Protection Act. The Lake Okeechobee Protection Plan that will be developed by January 1, 2004, will outline the subsequent phases of phosphorus load reduction needed to achieve the TMDL by 2015.

2-1.5 Lake Okeechobee Watershed Project

The Lake Okeechobee Watershed Project (LOWP) is a component of the Comprehensive Everglades Restoration Program (CERP). The LOWP consists of four regional water quality treatment and water storage components with the following two goals:

- ?? Provide storage of floodwater runoff from the northern watershed for the purpose of reducing the frequency and duration of high water levels in Lake Okeechobee that require damaging flood releases to the estuaries and harm the natural resources of the lake.
- ?? Provide phosphorous load reductions to Lake Okeechobee.

The project is currently in the planning phase. The first step in the planning process is the preparation a watershed assessment. As a part of the watershed assessment, hydrologic and water quality modeling will be performed to develop hydrologic and water quality characterizations for each sub-basin. This information will be used to identify the sub-basins that will be investigated for the placement of CERP project components.

The final product of the Watershed Assessment will be a work plan that identifies the geographic areas or sub-basins where LOWP components will be located (although the specific footprints of the project components will be identified in subsequent planning). The plan will also identify the maximum potential water storage and phosphorus load reductions that might be accomplished. Schedules and cost estimates for completion of the project will be included.

The Watershed Assessment is scheduled for completion in July 2003. In advance of that date, preliminary information will be available and will be useful in the development of the Lake Okeechobee Protection Plan. It is critical that the LOWP project planning be integrated into development of the more comprehensive Lake Okeechobee Protection Plan.

2-2 STATEMENT OF WORK

The Project Manager will work with the interagency team to identify representatives that will provide assistance in guiding and assisting in the preparation of work products. The Project Manager and/or his/her designees will provide general guidance to the Consultant for the preparation of strategies and work products to be reviewed by the entire interagency team.

This scope of professional services for this solicitation will consist of providing overall services to assist the Cooperating Agencies in the development of the Lake Okeechobee Protection Plan (Plan). The Plan will be prepared through: 1) documentation by the Consultant based on guidance provided by the interagency team at meetings, and 2) documentation provided by interagency participants. The Consultant will compile draft work products for review by the interagency team, assemble and compile comments, and finalize documents based on guidance from the Project Manager.

2-2.1 Meetings

The purposes of the meetings will be to:

- ?? Develop comprehensive integrated strategies for development of the Plan;
- ?? generate information that will be required for the preparation of the Plan through open interagency discussion;
- ?? identify requirements for written input to the plan from interagency participants; and
- ?? conduct interagency reviews and provide comments on draft work products.

The Consultant will assist the Project Manager in planning all meetings required by this contract. The Project Manager will make arrangements for the meeting facilities and send invitations. The Consultant will facilitate discussions to meet the specific goals of the meeting. The Consultant will prepare written documentation based on guidance provided by the interagency participants.

2-2.2 Documentation

The Consultant shall be responsible for preparing documentation required for the Plan. This will be accomplished through the following three mechanisms:

- ?? The Consultant shall document the results of literature reviews and contacts with interagency project managers regarding related ongoing or planned projects;
- ?? The Consultant shall prepare documentation of the results of meeting discussions required for preparation of the Plan; and
- ?? The Consultant shall integrate written input provided by interagency participants.

For each deliverable required by the contract, the Consultant shall prepare a Preliminary Draft for submittal for an initial review by the Project Manager. The Consultant shall then submit a Draft to the Project Manager for distribution to the interagency team. Comments from the interagency team will be provided directly to the Consultant. The Project Manager will provide guidance to the Consultant if there are questions regarding how to address comments. Based on guidance from the Project Manager, a Final deliverable will be prepared by the Consultant.

2-2.3 Document Production

All documents delivered or work products developed by the Interagency Team members will be in a electronic format that is consistent the software platform currently utilized by the SFWMD (MS Word, ARC Info, etc.)

All documents produced by the Consultant shall be delivered in electronic format that is consistent the software platform currently utilized by the SFWMD (MS Word, ARC Info, etc.)

Consultant shall be responsible for producing 30 black and white hardcopies of each deliverable to be delivered to the IAT members at the regularly schedule meetings.

Consultant will be responsible for producing up to 5 full size color display boards for each of the three public meetings planned for this project. Consultant will also be responsible for developing up to 100 copies of 11x17 double-sided handouts for each of the three public workshops.

Each deliverable required by this contract will be prepared by the Consultant in a manner that will enable its incorporation into the final Lake Okeechobee Protection Plan with little, or no modifications.

2-2.4 Work Breakdown Structure

The product of this contract will be a Lake Okeechobee Protection Plan that meets the requirements of the Lake Okeechobee Protection Act, including the requirements for an implementation of Phase II of the Lake Okeechobee Construction Project, the initial evaluation of additional phosphorus control measures, and the 2003 annual report.

The Plan will be developed through a step-wise process of developing a set of evaluation criteria; formulating a set of alternatives; evaluating and comparing the alternatives; and selection of the recommended plan. Each of these will be treated as independent but related tasks and will result in a deliverable that will be formatted to “build” the final document. The recommended plan will be described in a comprehensive draft document (compilation of previous task documents) that will be reviewed and approved by the individual participating agencies prior to its finalization.

Task 2-1 – Work Plan Development

The Consultant will develop a general work plan for Part 2 activities and present it at a initial meeting of the Interagency Team (Task 2-2.1). The purpose of the work plan and presentation will be to insure that the Consultant and Interagency Team members have a clear understanding of the project scope, responsibilities, and schedule. The work plan may be adjusted based on comments obtained during the initial meeting. It will serve as the baseline schedule to be used throughout the duration of Part 2 of this contract.

Deliverables

2-1.1 Work Plan

Task 2-2 – Evaluation Criteria

The product of this task will be a set of evaluation criteria that will be used by the interagency team to evaluate potential alternatives for reaching compliance with the Lake Okeechobee TMDL. Each alternative approach will consist of a combination of components that might include agricultural BMPs, urban BMPs, regional treatment facilities, etc that would collectively meet the TMDL.

The set of evaluation criteria must represent all major factors that would be used to evaluate alternatives and select the recommended plan. The evaluation criteria will support the overall goals and objectives of the project. Each criterion should consist of the following components:

1. Description: a description of what the criteria is measuring and why.
2. Rationale: a description of why the criterion is useful for measuring project results. This will assist in determining the weighting or relative importance of each criterion.
3. Target: a description of how performance will be measured for the evaluation criteria and what will constitute success (or failure) and procedures for scoring various levels of performance.
4. Methodology: a description of how the performance of the alternatives will be evaluated. In general, it is anticipated that most evaluations will be based on subjective evaluations using best professional judgement. The methodology should provide descriptions of specific considerations that will apply for subjective evaluations. For criteria where quantifiable measures are possible within the available timeframe, the methodology should provide specific descriptions of the models, computations, analyses, etc that will be required to evaluate performance.

It is assumed that the fact sheet format developed for the Lake Okeechobee Watershed Project will be used for this document.

- 2-2.1 Initial IAT Meeting on Evaluation Criteria: The Consultant shall work with the Project Manager to plan and organize a meeting of the interagency team to initiate development of the evaluation criteria. The goal of the meeting will be to identify an initial draft of a complete list of criteria that should be utilized. The Consultant shall facilitate the meeting and record the discussions as appropriate.
- 2-2.2 Preliminary Draft Evaluation Criteria Document: Based on the discussions at the meeting, the Consultant shall prepare a preliminary draft evaluation criteria document that will identify criteria to be used and provide descriptions and rationales for each.
- 2-2.3 Draft Evaluation Criteria Document: The preliminary draft will be reviewed by the IAT and comments will be incorporated by the Consultant into a draft document. The draft shall also contain descriptions of the targets and methodologies for each evaluation criteria. The Consultant will work with the Project Manager to identify appropriate agency team members to assist in preparing descriptions of the target and methodology for specific evaluation criteria. The Consultant shall compile input from the interagency team members into the final draft evaluation criteria document.
- 2-2.4 Public Workshop on Evaluation Criteria: The Consultant shall distribute the draft evaluation criteria document to the interagency team for review and comment. The Consultant shall work with the Project Manager to plan a public workshop to obtain input on the final draft evaluation criteria document. The Project Manager will arrange for the meeting facilities. The Consultant

shall prepare information to be distributed prior to, or at the meeting, attend the meeting and make a presentation as appropriate, and record public comments.

- 2-2.5 Final Evaluation Criteria Document: With guidance from the Project Manager, the Consultant shall respond to comments and finalize the document.

Deliverables

- 2-2.1 Interagency Meeting on Evaluation Criteria
- 2-2.2 Preliminary Evaluation Criteria Document
- 2-2.3 Draft Evaluation Criteria Document
- 2-2.4 Public Workshop on Evaluation Criteria
- 2-2.5 Final Evaluation Criteria Document

Task 2-3 – Alternative Plan Development

The product of this task will be a set of three to five alternatives that will undergo detailed evaluation by the interagency team. Each alternative will have the following characteristics:

- ?? The alternative may be composed of a combination of source control measures at a parcel scale and regional water quality treatment measures that will collectively meet the Lake Okeechobee TMDL.
- ?? Each alternative shall contain the regional water storage and water quality treatment components that have been defined the Lake Okeechobee Watershed CERP Project.
- ?? Each alternative will address the requirements for Phase II of the Lake Okeechobee Construction Project and the Lake Okeechobee Protection Plan.

The final set of alternatives will be identified through a process of brainstorming a broad set of alternatives and then screening the alternatives down to the 3 to 5 that would have the highest probability of meeting the goals of the program. The next task (Task 4) will consist of evaluation of the final set of alternatives by the interagency team based on the evaluation criteria developed in Task 1.

The results of the hydrologic and water quality characterization completed in the LOW Project will be used to identify specific areas where potential source control and treatment measures may be located. These measures will be targeted for areas outside of the LOW alternatives but will look to complement those project features.

- 2-3.1 IAT Meeting on Alternative Plan Brainstorming: The Consultant shall work with interagency team members identified by the Project Manager to plan and organize a meeting of the interagency team to initiate development of alternative plans. The goals of the meeting will be to brainstorm a broad range of alternative plans and to develop a process for narrowing the alternatives to a final set of 3 to 5. The Consultant shall facilitate the meeting and record the discussions as appropriate.
- 2-3.2 Preliminary Draft Alternative Plan Document: Based on the discussions at the meeting, the Consultant shall prepare a preliminary alternative plan document. The initial draft alternative plan document shall contain the following information:
- ?? Conceptual description of each alternative that is of sufficient detail to enable comparison with other alternatives.

- ?? Description of the method used to narrow the brainstormed set of alternatives down to a final set of 3 to 5.
- ?? Summary of why the final set of 3 to 5 alternative plans was selected for detailed evaluation.

The Consultant will distribute the preliminary document to the interagency team for review and comment.

- 2-3.3 Draft Alternative Plan Document: Based on guidance from the Project Manager, the Consultant shall incorporate comments into the draft document. The Consultant shall also work with the Project Manager to identify appropriate interagency team members to provide more detailed descriptions of each of the final set of alternative plans for incorporation into the final draft document. The Consultant shall incorporate input from the interagency team members on the alternative plan descriptions into the draft alternative plan document.
- 2-3.4 Final Alternative Plan Document: The Consultant shall distribute the draft alternative plan document to the interagency team for review and comment. Based on guidance from the Project Manager, the Consultant shall respond to comments and finalize the document.

Deliverables

- 2-3.1 Interagency Team Meeting on Alternative Plan Brainstorming
- 2-3.2 Preliminary Alternative Plan Document
- 2-3.3 Draft Alternative Plan Document
- 2-3.4 Final Alternative Plan Document

Task 2-4 – Alternative Plan Evaluation

The final product of this task will be documentation of the interagency team's evaluation of the final set of alternative plans identified in Task 2 using the evaluation criteria defined in Task 1. It is anticipated that a combination of objective and subjective evaluations will be required. The objective evaluations may require modeling or some other technical computational approach. The subjective evaluations may require the application of best professional judgment by qualified technical experts. The interagency team shall be responsible for performing all objective and subjective evaluations of alternative plans.

The Project Manager will identify the appropriate interagency team members to perform the objective evaluations. The Project Manager will also identify the appropriate individuals to provide their best professional judgment in the application of the subjective evaluation criteria.

The Consultant shall be responsible for preparing documentation of the results of the interagency team's evaluations of alternative plans. The Consultant shall assist the Project Manager in planning a process for facilitating the objective and subjective evaluations by the interagency team members. The Consultant shall also facilitate meetings, as appropriate, of the technical experts identified by the Project Manager to perform the subjective evaluations of alternative plans. It is assumed that the alternative plan evaluation will be accomplished by three sub-teams of technical experts each meeting 2 times (6 meetings total).

The Consultant shall compile the results of all evaluations of alternative plans and prepare a draft alternative plan evaluation document. The Consultant shall distribute a draft document to the interagency team for review and comment. Based on guidance from the Project Manager, the Consultant will respond to comments and prepare a final alternative plan evaluation document.

Deliverables

- 2-4.1 Draft Alternative Plan Evaluation Document

2-4.2 Final Alternative Plan Evaluation Document

Task 2-5 – Comparison of Alternative Plans

The final product of this task will be a comparison of the alternatives for the Lake Okeechobee Protection Plan in a form that can be used to identify the plan that best meets the requirements of the Lake Okeechobee Protection Act. The comparison of alternative plans will be performed based on the evaluations performed in Task 2-4.

- 2-5.1 IAT Plan Selection Meeting: The Consultant will assist the Project Manager in the developing a strategy for conducting an interagency team meeting to discuss the comparison of alternative plans. The Consultant shall facilitate the interagency team meeting. The goal of the interagency meeting will be to describe the relative performance of the alternative plans.
- 2-5.2 Initial Public Workshop on Alternative Plan Comparison: Following the interagency team meeting, a public workshop will be conducted to obtain comments. The goal of the public workshop will be to obtain input on the comparison of the alternative plans. The Consultant shall be responsible for recording the discussions at the meetings and documenting the rationale for selection of the recommended plan.
- 2-5.3 Preliminary Alternative Plan Comparison Document: A preliminary alternative plan comparison document will be prepared by the Consultant. The preliminary document will contain a summary of the results of Tasks 1, 2, and 3, in addition to a description of the relative performance of each of the alternatives.
- 2-5.4 Draft Alternative Plan Comparison Document: The Consultant will distribute the draft alternative plan comparison document to the interagency team for review and comment. Based on guidance from the Project Manager, the Consultant shall respond to comments and finalize the draft document.
- 2-5.5 Final Public Workshop for Alternative Plan Comparison: The Consultant shall assist the Project Manager to plan and conduct a public workshop to discuss the comparison of alternative plans. The Consultant shall be available at the public workshop to provide presentations or to answer questions as appropriate. The Consultant shall be responsible for recording the discussions at the public workshop.
- 2-5.6 Final Alternative Plan Comparison Document: The Project Manager will provide guidance to the Consultant regarding potential modifications to the comparison of the plans based on public input. Based on guidance provided by the Project Manager, the Consultant shall prepare a final recommended plan document.

5.1.1 Deliverables

- 2-5.1 Interagency Meeting for Alternative Plan Comparison
- 2-5.2 Initial Public Workshop on Alternative Plan Comparison
- 2-5.3 Preliminary Alternative Plan Comparison Document
- 2-5.4 Draft Alternative Plan Comparison Document

2-5.5 Final Public Workshop for Alternative Plan Comparison

2-5.6 Final Plan Document

Task 2-6 – Final Lake Okeechobee Protection Plan Report

The final product of this task will consist of a final report that has been approved by each of the cooperating agencies and includes:

- ?? the results of Tasks 1 through 4;
- ?? a more detailed description of the recommended plan;
- ?? an implementation schedule with milestones and cost estimates;
- ?? an initial evaluation of further phosphorus measures that will be required to meet the TMDL; and
- ?? the 2003 annual progress report.

The LOPP report will include a main report that summarizes the results of Tasks 1 through 4. More detailed information on these tasks will be included in appendices to the report. The description of the recommended plan developed in Task 2 will be modified to provide additional detail regarding what is included, how it will be implemented, what agencies/entities will be responsible, land requirements, cost estimates, and a schedule of milestones. The report will address an initial assessment of additional measures that will be needed to achieve the Lake Okeechobee TMDL. Additionally, the report will contain a 2003 progress report with the same format and content of the prior annual reports. An executive summary of no more than 20 pages will be prepared by the Consultant.

The Consultant will work with the Project Manager to identify input that will be required to complete the LOPP report. The Project Manager will request the appropriate interagency team members to prepare portions of the report. The interagency team members will prepare the report sections and provide them to the Consultant.

The Consultant shall compile input from the interagency team members and the results of Tasks 1 through 4 into a coherent draft document with appendices and an executive summary. The Consultant shall distribute the draft LOPP report to the interagency team for review and comment. Based on guidance from the Project Manager, the Consultant shall respond to comments and finalize the report. The Consultant will also prepare a final LOPP report.

Deliverables

2-6.1 Draft Lake Okeechobee Protection Plan Report

2-6.2 Final Lake Okeechobee Protection Plan Report